PATENT APPLICATION
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APPLICANT(S): Andrew AARON et al.

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EXAMINER: NEWAY, Samuel G.

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FOR: A SYSTEM AND METHOD FOR IMPROVING TEXT-TO-SPEECH SOFTWARE INTELLIGIBILITY THROUGH THE DETECTION OF UNCOMMON WORDS AND PHRASES

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

RESPONSE

Sir:

In response to the Office Action of the United States Patent and Trademark Office dated July 24, 2007, please consider the following amendments and remarks.

AMENDMENTS TO THE SPECIFICATION

Please amend the last paragraph on page 6 and continuing onto page 7, as follows:

--Fig. 2 is a diagram illustrating the TTS engine according to an embodiment of the present invention. The present invention will now be described with reference to Fig. 2. The modules and elements shown in Fig. 2 that bear the same reference labels as the modules and elements of Fig. 1 are similar to those in the prior art systems and generally perform similar functions. Text 102 is input and normalized by text normalization module 103. The normalized text 104 is input into rare sequence detector 201. The rare sequence detector 201 detects uncommon words and sequences based on the above outlined metrics. For example, if a word or phrase is not found in the TTS system dictionary, the word or phrase is marked as rare. Also the rare sequence detector 201 can recognize capitalization rules and if a word is capitalized, it is marked rare, keeping in mind the occasional false markings will only cause a word or phrase to output at a slower rate, which will not affect the overall comprehension of the listener. Additionally, the rare sequence detector 201 can contain a statistical language model trained on large amounts of text to spot low probability words and word sequences that are marked rare. And further, the rare sequence detector 201 can be programmed to predict, using a prediction algorithm, when a difficult word or word pair has been encountered. The prediction algorithm compares a calculated value with a threshold value and if the calculated value is less than the threshold value the word is determined as uncommon. Whatever rare word or phrase detection scheme is embodied, the TTS system according to the present invention inserts a rare marking in the normalized text, wherein the system will insert a pause when finalizing the output speech. When the TTS System encounters a section of low confidence or unknown words, it will add pauses and increase durations.--